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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,449	01/02/2002	Robin Pramanik	Q67617	6566

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SUGHRUE MION, PLLC
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EXAMINER

DOUGHERTY, ANTHONY T

ART UNIT PAPER NUMBER

2863

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,449

Applicant(s)

PRAMANIK, ROBIN

Examiner

Anthony T. Dougherty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, and 6 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,481,200 to Voegele et al.

With regard to claim 1 Voegele et al. discloses a measuring transducer operable to transmit an analog output over a two-wire line (see abstract), with a sensor to convert a measured quantity into a sensor signal (see column 1 line 59 through line 60 & column 5 line 3 & Figure 1 Reference Numeral 8), an analog-to-digital converter connected to the sensor to digitize the sensor signal (see Figure 1 Reference Numeral 38), an arithmetic-logic unit to process the digitized sensor signal into a setpoint value (see Figure 1 Reference Numerals 38 & 24 & column 4 line 20 through line 22), an output circuit controlled the arithmetic-logic unit (see Figure 1 Reference Numerals 32, 34, and 36) and connectable to the two-wire line (see Figure 1 Reference Numerals 13 and 30), with the setpoint value used to adjust the analog output signal on the two-wire line in the output circuit (see column 2 line 59 through column 3 line 2), the output circuit made up of a plurality of resistors which detect the output signal (see Figure 1 Reference Numerals 32 and 34), and supply the analog output signal or a signal derived directly therefrom to the analog-to-digital converter (see column 2 line 19 through line 27 & column 2 line 49 through line 51), and the arithmetic-logic unit is configured to determine any deviation

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between the analog output signal and the setpoint value (see column 2 line 27 through line 41 & column 4 line 17 through line 27).

With regard to claim 2, and applying the rejection of claim 1 above, Voegelé et al. discloses a data interface operable to transmit or display information regarding the deviation (see column 4 line 3 through line 9 & column 4 line 14 through line 16).

With regard to claim 3, and applying the rejection of claim 1 above, Voegelé et al. discloses the arithmetic-logic unit corrects the setpoint value as a function of the determined deviation in such a way that the deviation between the analog output signal that is adjusted with the corrected setpoint value and a non-corrected setpoint value is minimized (see column 2 line 27 through line 41).

With regard to claim 5, and applying the rejection of claim 1 above, Voegelé et al. discloses the sensor signal and the analog output signal, or the signal derived therefrom, are each supplied to different inputs of the analog-to-digital converter (see Figure 1 Reference Numeral 28).

With regard to claim 6 Voegelé et al. discloses a measuring transducer operable to transmit an analog output over a two-wire line (see abstract), with a sensor to convert a measured quantity into a sensor signal (see column 1 line 59 through line 60 & column 5 line 3 & Figure 1 Reference Numeral 8), an analog-to-digital converter connected to the sensor to digitize the

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sensor signal (see Figure 1 Reference Numeral 38), an arithmetic-logic unit to process the digitized sensor signal into a setpoint value (see Figure 1 Reference Numerals 38 & 24 & column 4 line 20 through line 22), an output circuit controlled the arithmetic-logic unit (see Figure 1 Reference Numerals 32, 34, and 36) and connectable to the two-wire line (see Figure 1 Reference Numerals 13 and 30), with the setpoint value used to adjust the analog output signal on the two-wire line in the output circuit (see column 2 line 59 through column 3 line 2), the output circuit made up of a resistor means which detect the output signal (see Figure 1 Reference Numerals 32 and 34), and supply the analog output signal or a signal derived directly therefrom to the analog-to-digital converter (see column 2 line 19 through line 27 & column 2 line 49 through line 51), and the arithmetic-logic unit is configured to determine any deviation between the analog output signal and the setpoint value (see column 2 line 27 through line 41 & column 4 line 17 through line 27).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,481,200 to Voegelé et al. in view of U.S. Patent No. 5,469,101 to Yepp.

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With regard to claim 4, and applying the rejection of claim 1 above, the primary reference to Voegele et al. fails to disclose the sensor signal and the analog output signal, or the signal derived therefrom, are supplied to the analog-to-digital converter via a multiplexer.

The secondary reference to Yepp discloses using a multiplexer to quantize a plurality of analog signals to digital signals for processing (see Yepp column 1 line 11 through line 16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Voegele et al. to use a multiplexer to input the sensor signal and the analog output signal, or the signal derived therefrom, into an analog-to-digital converter.

Accordingly, such a modification would have been obvious since Yepp teaches that using a multiplexer is an efficient method for digitizing multiple analog signals (see Yepp column 1 line 16 through line 20), thereby suggesting the obviousness of the modification.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 4,873,655 to Kondraske because it teaches adjusting a sensor output based on feeding the output back with the sensor input and applying both signals to an analog-to-digital converter.

U.S. Patent No. 5,668,320 to Cowan because it teaches adjusting a sensor output by applying the output as feedback to the sensor input.

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U.S. Patent No. 5,828,567 to Eryurek et al. because it teaches a sensor connected to an analog-to-digital converter and an arithmetic-logic unit with two digitized signals used in processing results of the transducer.

U.S. Patent No. 5,329,818 to Frick et al. because it teaches adjusting the output of a pressure transducer based on temperature variations.

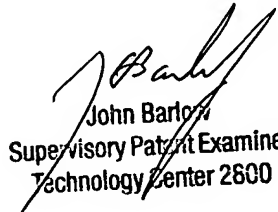
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony T. Dougherty whose telephone number is (703) 305-4020. The examiner can normally be reached on Monday through Friday from 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



atd



John Barlow
Supervisory Patent Examiner
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